

12/20/04
OB766.42647A00
NAT STAGE: 10/4/05
RWS

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
 RONALD J. SHORE
 ANTONELLI, TERRY, STOUT & KRAUS, LLP
 SUITE 1800
 1300 NORTH SEVENTH STREET
 ARLINGTON, VA 22209

PCT**NOTIFICATION OF TRANSMITTAL OF
INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

(PCT Rule 71.1)

Date of Mailing (day/month/year)	17 DEC 2004
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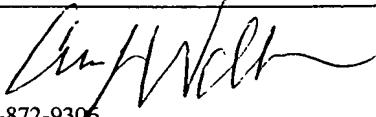
Applicant's or agent's file reference 766.42647A00		IMPORTANT NOTIFICATION
International application No. PCT/US03/10238	International filing date (day/month/year) 04 April 2003 (04.04.2003)	Priority date (day/month/year)
Applicant SY-KLONE COMPANY, INC.		

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Robert A Hopkins Telephone No. 703-872-9306	
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 766.42647A00	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/10238	International filing date (day/month/year) 04 April 2003 (04.04.2003)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC IPC(7): B01D 50/00, 45/14 and US Cl.: 95/268,270; 55/385.3, 396,337,423,401,437,457,467,503		
Applicant SY-KLONE COMPANY, INC.		

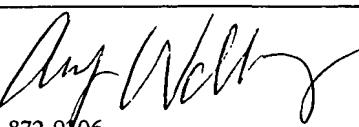
1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 03 November 2004 (03.11.2004)	Date of completion of this report 09 December 2004 (09.12.2004)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Robert A Hopkins Telephone No. 703-872-9306 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/10238

I. Basis of the report

1. With regard to the elements of the international application:*

 the international application as originally filed. the description:

pages 1-10 as originally filed

pages NONE, filed with the demandpages NONE, filed with the letter of _____. the claims:

pages 12-15, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages 11,16, filed with the demand

pages NONE, filed with the letter of _____. the drawings:

pages 1-7, as originally filed

pages NONE, filed with the demandpages NONE, filed with the letter of _____. the sequence listing part of the description:pages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in printed form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. The amendments have resulted in the cancellation of: the description, pages NONE the claims, Nos. NONE the drawings, sheets/fig NONE5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/10238**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims 1-24	YES
	Claims NONE	NO
Inventive Step (IS)	Claims 1-24	YES
	Claims NONE	NO
Industrial Applicability (IA)	Claims 1-24	YES
	Claims NONE	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-14 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest an air filter being elongated in the direction of the axis about which the debris laden air is rotated.

Claims 15 and 16 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a debris strake connected to the air filter for channeling debris away from the filter to the outermost orbits of the rotating flow.

Claims 17-21 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest channeling debris away from the filter to the outermost orbits of the rotating flow with a debris strake connected to the filter.

Claims 22-24 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest wherein the air filter is swept by the rotating flow to provide a self cleaning action on the filter.

Claims 1-24 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in the air filter industry.

----- NEW CITATIONS -----

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forming a rotating flow of the debris laden air in the system at a positive air flow pressure to stratify the flow with the heaviest particles in the outermost orbits of the rotating flow;

ejecting particulate debris laden air from the outermost orbits of the stratified,

- 5 positively pressured rotating flow in the system through an ejector port located radially outward of the outermost orbits of the rotating flow; and

withdrawing air from the innermost orbits of the rotating flow in the system through an air filter and an outlet of the system by applying a vacuum to the outlet, wherein the air filter is swept by the rotating flow to provide a self cleaning action on

- 10 the filter.

23. The method according to claim 22, including operating the motor-driven fan to maintain the positive air flow pressure to eject particulate debris laden air from the outermost orbits of the stratified rotating flow in the system at all rates of withdrawal of air through the outlet of the system.

24. The method according to claim 22, wherein the ejector port is in the form of a slot in a housing containing the rotating flow, the slot extending in a direction transverse to the direction of rotation of the rotating flow.

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTICE INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

SHORE, Ronald, J.
 Antonelli, Tery, Stout & Kraus, LLP
 Suite 1800
 1300 N. Seventeenth Street
 Arlington, VA 22209
 ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 18 November 2004 (18.11.2004)	
Applicant's or agent's file reference 766.42647A00	
International application No. PCT/US2003/010238	International filing date (day/month/year) 04 April 2003 (04.04.2003)
Priority date (day/month/year)	
Applicant SY-KLONE COMPANY, INC. et al	

IMPORTANT NOTICE

1. Notice is hereby given that the International Bureau has **communicated**, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

AU, AZ, BY, CH, CN, CO, DZ, EP, HU, KG, KP, KR, MD, MK, MZ, RU, TM, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE, AG, AL, AM, AP, AT, BA, BB, BG, BR, BZ, CA, CR, CU, CZ, DE, DK, DM, EA, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MG, MN, MW, MX, NO, NZ, OA, OM, PH, PL, PT,
 RO, SC, SD, SE, SG, SK, SL, TJ, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on
18 November 2004 (18.11.2004) under No. WO 2004/098748

4. TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase

The applicable time limit for entering the national phase will, subject to what is said in the following paragraph, be **30 MONTHS** from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of **19 months** from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, **time limits other than the 30-month time limit** will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For regular updates on the applicable time limits (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a **demand for international preliminary examination**, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's sole responsibility to monitor all these time limits.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Nora Lindner
Facsimile No.+41 22 740 14 35	Facsimile No.+41 22 338 89 65

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

ISS

To:

RONALD J. SHORE
ANTONELLI, TERRY, STOUT & KRAUS, LLP
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VIRGINIA 22209

PCT

**NOTIFICATION OF RECEIPT
OF DEMAND BY COMPETENT INTERNATIONAL
PRELIMINARY EXAMINING AUTHORITY**

(PCT Rules 59.3(e) and 61.1(b), first sentence
and Administrative Instructions, Section 601(a))

Date of mailing
(day/month/year)

30 NOV 2004

Applicant's or agent's file reference

766.42647A00

IMPORTANT NOTIFICATION

International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/US03/10238	04 Apr 2003	

Applicant

SY-KLONE COMPANY, INC.

1. The applicant is hereby **notified** that this International Preliminary Examining Authority considers the following date as the date of receipt of the demand for international preliminary examination of the international application:

03 Nov 2004

2. That date of receipt is:

the actual date of receipt of the demand by this Authority (Rule 61.1(b)).
 the actual date of receipt of the demand on behalf of this Authority (Rule 59.3(e)).
 the date on which this Authority has, in response to the invitation to correct defects in the demand (Form PCT/IPEA/404), received the required corrections.

3. **ATTENTION:** That date of receipt is **AFTER** the expiration of 19 months from the priority date. Consequently, the election(s) made in the demand does (do) not have the effect of postponing the entry into the national phase until 30 months from the priority date (or later in some Offices) (Article 39(1)). Therefore, the acts for entry into the national phase must be performed within 20 months from the priority date (or later in some Offices) (Article 22). For details, see the *PCT Applicant's Guide*, Volume II.

(*If applicable*) This notification confirms the information given by telephone, facsimile transmission or in person on:

4. Only where paragraph 3 applies, a copy of this notification has been sent to the International Bureau.

Name and mailing address of the IPEA/
Mail Stop PCT, Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450

Facsimile No. 703-305-3230

Authorized officer

Latrice Russell

Telephone No. 703-306-5829

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:
IPEA/ US

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only	
Identification of IPEA	Date of receipt of DEMAND
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION	
Applicant's or agent's file reference 766.42647A00	
International application No. PCT/US03/10238	International filing date (day/month/year) 04 April 2003 (04.04.03)
(Earliest) Priority date (day/month/year)	
Title of invention Powered Air Cleaning System and Air Cleaning Method	
Box No. II APPLICANT(S)	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) SY-KLONE COMPANY, INC. 6451-1 Powers Avenue Jackson, FL 32217 United States of America	Telephone No.
	Facsimile No.
	Teleprinter No.
	Applicant's registration No. with the Office
State (that is, country) of nationality: US	State (that is, country) of residence: US
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) MOREDOCK, James G. 12559 Lazy Meadow Drive South Jacksonville, FL 32225 United States of America	
State (that is, country) of nationality: US	State (that is, country) of residence: US
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) EHRENBERG, Eric L. 4075 Bald Eagle Lane Jacksonville, FL 32257 United States of America	
State (that is, country) of nationality: US	State (that is, country) of residence: US
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.	

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The following person is agent common representative
 and has been appointed earlier and represents the applicant(s) also for international preliminary examination.
 is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.
 is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address: (*Family name followed by given name; for a legal entity, full official designation.
 The address must include postal code and name of country.*)

SHORE, Ronald J.
ANTONELLI, TERRY, STOUT & KRAUS, LLP
 Suite 1800
 1300 North Seventeenth Street
 Arlington, VA 22209
 United States of America

Telephone No.
703-312-6600

Facsimile No.
703-312-6666

Teleprinter No.

Agent's registration No. with the Office
28,577

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION**Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:
 the international application as originally filed
 the description as originally filed
 as amended under Article 34
- the claims as originally filed
 as amended under Article 19 (together with any accompanying statement)
 as amended under Article 34
- the drawings as originally filed
 as amended under Article 34
2. The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.
3. The applicant wishes the start of the international preliminary examination to be postponed until the expiration of the applicable time limit under Rule 69.1(d).
4. The applicant expressly wishes the international preliminary examination to start earlier than at the expiration of the applicable time limit under Rule 54bis.1(a).

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English

which is the language in which the international application was filed.
 which is the language of a translation furnished for the purposes of international search.
 which is the language of publication of the international application.
 which is the language of the translation (to be) furnished for the purposes of international preliminary examination.

Box No. V ELECTION OF STATES

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT.

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

			For International Preliminary Examining Authority use only	
			received	not received
1. translation of international application	:	sheets	<input type="checkbox"/>	<input type="checkbox"/>
2. amendments under Article 34	:	4 sheets	<input type="checkbox"/>	<input type="checkbox"/>
3. copy (or, where required, translation) of amendments under Article 19	:	sheets	<input type="checkbox"/>	<input type="checkbox"/>
4. copy (or, where required, translation) of statement under Article 19	:	sheets	<input type="checkbox"/>	<input type="checkbox"/>
5. letter	:	sheets	<input type="checkbox"/>	<input type="checkbox"/>
6. other (specify)	:	sheets	<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

1. <input type="checkbox"/> fee calculation sheet	5. <input type="checkbox"/> statement explaining lack of signature
2. <input type="checkbox"/> original separate power of attorney	6. <input type="checkbox"/> sequence listing in computer readable form
3. <input type="checkbox"/> original general power of attorney	7. <input type="checkbox"/> tables in computer readable form related to a sequence listing
4. <input type="checkbox"/> copy of general power of attorney; reference number, if any:	8. <input type="checkbox"/> other (specify):

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

Ronald J. Shore; Agent/Common Representative

— For International Preliminary Examining Authority use only —

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.
 The applicant has been informed accordingly.

4. The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.

5. Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

6. The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis.1(a) and item 7 or 8, below, does not apply.

7. The date of receipt of the demand is WITHIN the time limit under Rule 54bis.1(a) as extended by virtue of Rule 80.5.

8. Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis.1(a), the delay in arrival is EXCUSED pursuant to Rule 82.

— For International Bureau use only —

Demand received from IPEA on:

CHAPTER II**PCT****FEE CALCULATION SHEET****Annex to the Demand**

International application No.	PCT/US03/10238	For International Preliminary Examining Authority use only
Applicant's or agent's file reference	766.42647A00	Date stamp of the IPEA
Applicant SY-KLONE COMPANY, INC.		
CALCULATION OF PRESCRIBED FEES		
1. Preliminary examination fee	\$600.00	P
2. Handling fee (<i>Applicants from certain States are entitled to a reduction of 75% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 25% of the handling fee.</i>)	\$162.00	H
3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box	\$762.00	TOTAL
MODE OF PAYMENT		
<input type="checkbox"/> authorization to charge deposit account with the IPEA (see below)	<input type="checkbox"/> cash	
<input checked="" type="checkbox"/> cheque	<input type="checkbox"/> revenue stamps	
<input type="checkbox"/> postal money order	<input type="checkbox"/> coupons	
<input type="checkbox"/> bank draft	<input type="checkbox"/> other (<i>specify</i>): _____	
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT (<i>This mode of payment may not be available at all IPEAs</i>)		
IPEA/ _____		
<input type="checkbox"/> Authorization to charge the total fees indicated above.	Deposit Account No.: _____	
<input type="checkbox"/> (<i>This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit</i>) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.	Date: _____	
Name: _____		
Signature: _____		